# MEDICINAL PLANTS

*EXPERIMENTS TAKEN UP*

*IN*

## INDUSTRIAL WOOD RESEARCH DIVISION LABORATORY,
## MUKKOMBU,
## TRICHY

## FOUNDATION FOR REVITALIZATION OF LOCAL HEALTH TRADITION

**Botanical Name** : *Terminalia arjuna*

**Tamil Name** : Maruthamaram, Neermathy, Vellamatta

**Family Name** : Combretaceace

**Habit** : Tree

**Habitat** : Throughout the greater part of India, especially northern circars, Deccan, Thirunelveli and west cost. It also grow river banks.

**Description of plant** : A large and handsome deciduous tree usually with narrow oblong leaves, the stems often buttressed. Bark pinkish-grey, smooth; wood brown, variegated with darker streaks, very hard and useful. Tree up to 25 meter hight; leaves sub-opposite, 5–14 × 2–4.5 cm., oblong or elliptic oblong, glabrous, often inequilateral, margin often crenulate, apex obtuse or sub-acute, base rounded or sometimes cordate; petioles 0.5–1.2cm; glands usually two. Flowers small, white. Fruit 2.3–3.5 cm long, fibrous woody, glabrous with 5 hard wings, striated with numerous curved veins. Flowering time April–July in Indian conditions. Seeds hard germination 50–76 days (50–60%)

Habit

**Flowering period** : April – May

**Fruiting period** : November – January

**Parts used** : Barks, Leaves, Fruits

1985
1985
306

Flowers

Fruits of Terminalia arjuna

TNFA - CBE
Centenary Library
19759

**Medicinal properties:** Terminalia arjuna is a medicinal plant widely used by Ayurvedic physicians for its curative properties in organic / functional heart problems including angina, hypertension and deposits in arteries.

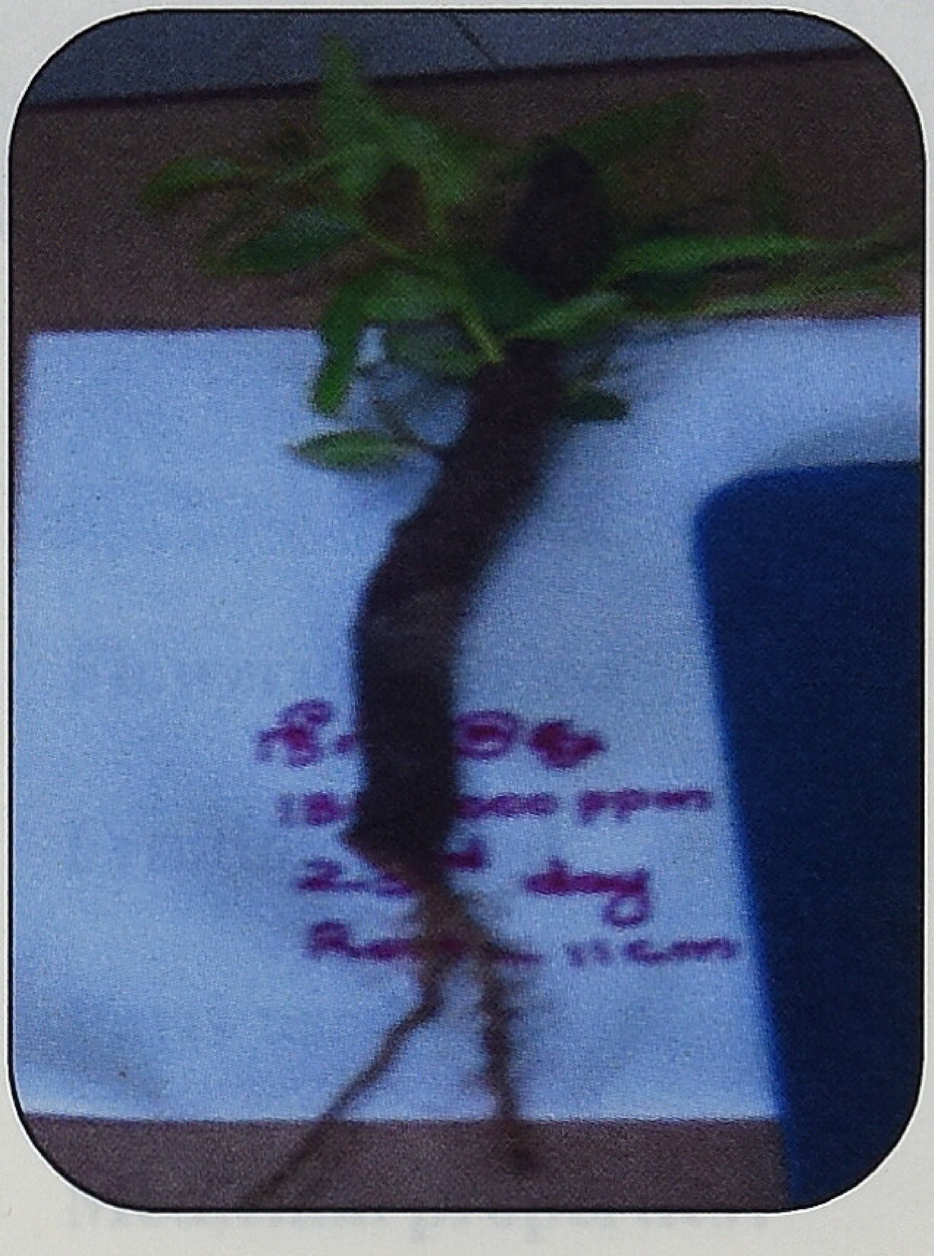
**Propagation :** Seeds are main source, Vegetative propagation also followed now a days.

**Cultivation Method:** after collection of mature fruits dried into sunlight & then stored up to 6-12 months. Seeds are pretreated by soaking in water for 48 hrs before sowing in beds. 8-9 months old seedlings are better to transplant in the field.

**IBA 6000 ppm gave only 20% of rooting in the month of August**

**Traditional knowledge** English : **Arjun, Terminalia.** Hindi : **Arjun, Maruthu, Kahu** Telugu : **Yermaddi.**

**Other uses :** Recommended for reclamation of saline, alkaline soils and deep ravines. Used for agro and social forestry. Timber is locally used for carts, agricultural implements, water troughs, traps, boat building, house building, electric poles, tool-handles, jetty-piles and plywood. Fodder is useful for tassar silkworm. It is one of the major tannin yielding trees. Bark (22–24%), leaf (10–11%) and fruit (7–20%) contains tannins.



Seeds of Terminalia arjuna

Harvesting method : The ripened fruits fallen under the tree. And they are hand picked from the ground.

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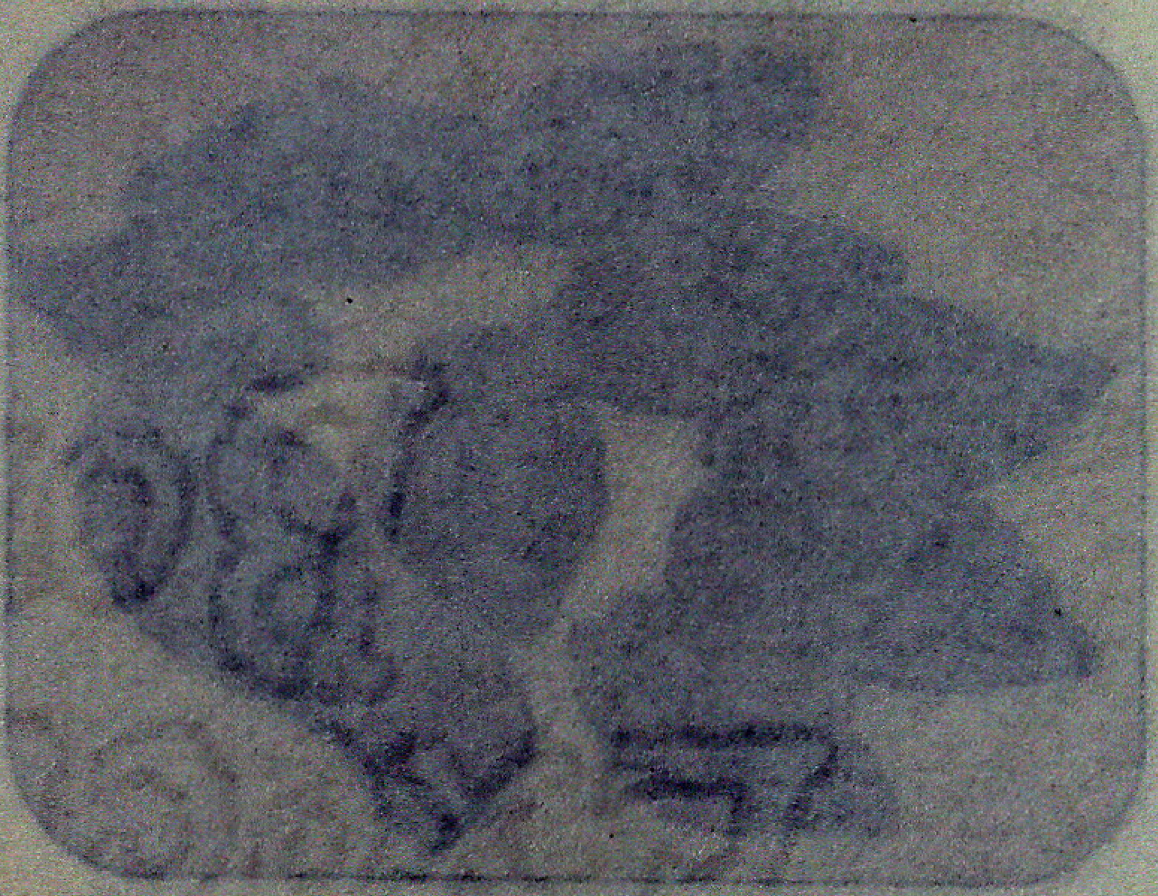

Seeds of Terminalia arjuna

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**FOUNDATION FOR REVITALIZATION OF LOCAL HEALTH TRADITION**

**Botanical Name** : *Cassia fistula*

**Tamil Name** : Sarakkondrai, Sarakkonnai

**Family Name** : Caesalpiniaceae

**Habit** : Small Tree

**Habitat** : Found frequently in all forests of Tamilnadu more commonly in dry deciduous forests, cultivated as ornamental plant throughout India.

**Description of plant** : Cassia fistula is a fast growing, medium-sized, deciduous tree which grows to about 9 meters in height. Leaves are compound, with 4-8 pairs of opposite leaflets. It produces flowers, which are golden yellow, and hang in showering bunches of up to 40 cm long earning its common name of "golden shower tree." The flowers appear when the branches are bare, just before the new leaves emerge and are a favorite of bees and butterflies. The blooms are followed by the production of two-foot-long, dark brown, cylindrical, woody seed pods which persist on the tree throughout the winter before falling to litter the ground. Cassia fistula is native to India, the Amazon and Sri Lanka, and is now widely cultivated worldwide as an ornamental tree for its beautiful showy yellow flowers.

Habit

**Flowering period** : March - April

**Fruiting period** : June - August

**Parts used** : Root bark, Root, Pulp, Leaves, Flowers

**Medicinal properties**: There are many *Cassia* species worldwide which are used in herbal medicine systems. This particular family of plants are used widely for their laxative actions. Cassia fistula is no exception... it is often used as a highly effective

Cassia fistula Flowers

moderate laxative that is safe even for children. However, in large doses, the leaves and bark can cause vomiting, nausea, abdominal pain and cramps. Cassia fistula is also employed as a remedy for tumors of the abdomen, glands, liver, stomach, and throat, for burns, cancer, constipation, convulsions, delirium, diarrhea, dysuria, epilepsy, gravel, hematuria, pimples, and glandular tumors. In Ayurvedic medicine systems, the seeds are attributed with antibilious, aperitif, carminative, and laxative properties while the root is used for adenopathy, burning sensations, leprosy, skin diseases, syphilis, and tubercular glands. The leaves are employed there for erysipelas, malaria, rheumatism, and ulcers. In Brazilian herbal medicine, the seeds are used as a laxative and the leaves and/or bark is used for pain and inflammation.

**Propagation** : Collected mature fruits dried into sunlight, Seeds were separated from the fruits. Seeds are pretreated by soaking in water for 48 hrs. and put in to the mother beds.

Vegetative propagation is under observation

**Harvesting method** : Generally the collection of Cassia fistula fruits carried out during the month of June. The fruits are hand picked from the trees using sticks. The fallen fruits are sun dried and the fruit coat separated manually. Seeds are smaller in size and it is very hard. This will be used for germination.

Habit

Seeds of Cassia fistula

**FOUNDATION FOR REVITALIZATION OF LOCAL HEALTH TRADITION**

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|---|---|---|
| **Botanical Name** | : | *Cissus quadarangularis* |
| **Tamil Name** | : | Pirandai |
| **Family Name** | : | Viraceae |
| **Habit** | : | Climbing shrub |
| **Habitat** | : | Throughout the warmer parts of India, also cultivated in gardens. |
| **Description of plant** | : | Climbing herb, tendrils simple, opposite to the leaves, leaves simple or lobbed, sometimes 3-folialate, dentate. Flowers bisexual, tetramerous, in umbellate cymes, opposite to the leaves, Calyx cup-shaped, obscurely 4-lobed. Fruit globose or obovoid fleshy berries, one seeded, dark purple to black; seeds ellipsoid or pyriform. Flowering and fruiting time May-June. |
| **Flowering period** | : | April - May |
| **Fruiting period** | : | May - June |
| **Parts used** | : | Stem |
| **Medicinal properties** | : | It is mainly used as healer of bone fractures. It is one of the very frequently used herb by traditional bone setters of India.. It is also used for piles, asthma, digestive troubles, cough, and loss of appetite. Dyspepsia, General weakness, bone fractures. The anaboli and steroidal principles of the aerial part showed a marked influence in the rate of facture healing. The stem is used as alternative in scurvy (rich in Vitamin C) and irregular menstruation. |
| **Other uses** | : | Stems and roots yield strong fiber. Young shoots are used in curries |
| **Propagation** | : | In Vegetative propagation IBA 100 ppm gives 85-90 % results. |

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|---|---|---|
| **Botanical Name** | : | *Cissus quadrangularis* |
| **Tamil Name** | : | Pirandai |
| **Family Name** | : | Vitaceae |
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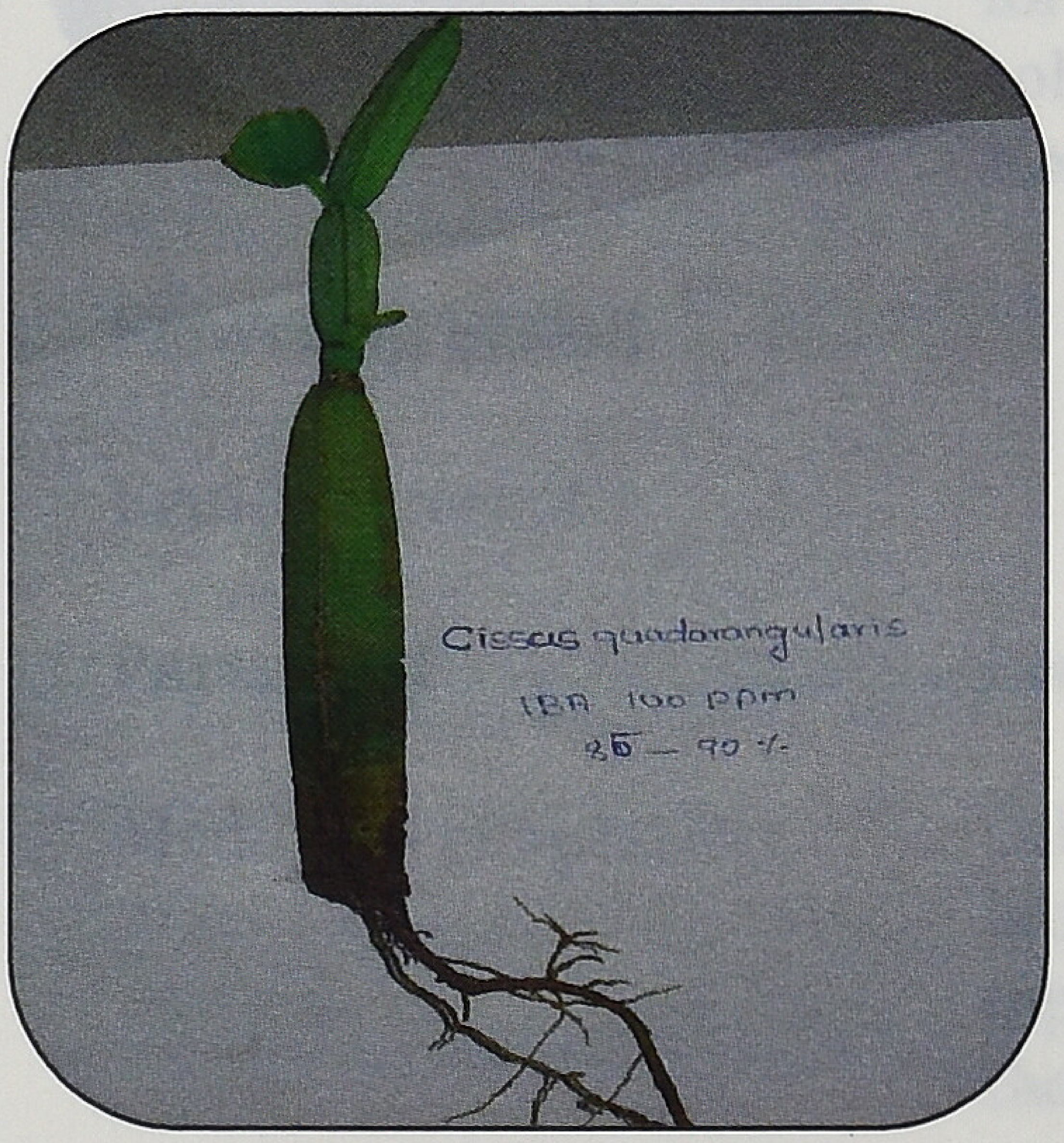
**Traditional knowledge** English : **Edible-stemmed vine.** Hindi : **Hadjod; Hadjora; Harsankari,** Telugu : **Nalleru**

Habit

Stem of the plant

**Seeds harvesting method** : The matured fruits hand picked during the month of August onwards.




Cissus quadarangularis
IBA 100ppm
85-90% rooting

## FOUNDATION FOR REVITALIZATION OF LOCAL HEALTH TRADITION

**Botanical Name** : *Melaleuca alternifolia*

**Tamil Name** : Kaayaaputi

**Family Name** : Myrtaceae

**Habit** : Tree

**Habitat** : Indigenous to Burma, Cambodia, Thailand, Malay Penisula to Australia grown in Indian gardens and parks.

**Description of plant** :

The species are shrubs and trees growing to 2–30 m tall, often with flaky, exfoliating bark. The leaves are evergreen, alternately arranged, ovate to lanceolate, 1-25 cm long and 0.5-7 cm broad, with an entire margin, dark green to grey-green in colour. The flowers are produced in dense clusters along the stems, each flower with fine small petals and a tight bundle of stamens; flower colour varies from white to pink, red, pale yellow or greenish. The fruit is a small capsule containing numerous minute seeds. One well-known melaleuca, the Ti tree (aka tea tree),Melaleuca alternifolia is notable for its essential oil which is both anti-fungal and antibiotic, while safely usable for topical applications. This is produced on a commercial scale, and marketed as Tea Tree Oil. The Ti tree is not actually usable for making tea, but presumably named for the brown colouration of many water courses caused by shed leaves from this.

**Flowering period** :

**Fruiting period** :

**Parts used** : Leaves

**Medicinal properties**: Oil used as an expectorant in chronic laryngitis and bronchitis and as a carminative. It act as anthelmintic especially against round worms. Enters into ointments for rheumatism and stiff joints sprains and neuralgia migraine

TNFA - CBE
Centenary Library
19759

Tree with flower

Melaleuca alternifolia

colds influenza and as a mosquito repellent. Alterative; Antibacterial; Antiseptic; Aromatherapy; Diaphoretic; Expectorant

Tea tree, and in particular its essential oil, is one of the most important natural antiseptics and it merits a place in every medicine chest. It is useful for treating stings, burns, wounds and skin infections of all kinds.

An essential oil obtained from the leaves and twigs is strongly antiseptic, diaphoretic and expectorant. It stimulates the immune system and is effective against a broad range of bacterial and fungal infections. Internally, it is used in the treatment of chronic and some acute infections, notably cystitis, glandular fever and chronic fatigue syndrome. It is used externally in the treatment of thrush, vaginal infections, acne, athlete's foot, verrucae, warts, insect bites, cold sores and nits. It is applied neat to verrucae, warts and nits, but is diluted with a carrier oil such as almond for other uses.The oil is non-irritant.

The essential oil is used in aromatherapy. Its keyword is 'Antiseptic'.

**Melaleuca alternifolia** oil is not only sold as an aromatherapy oil, but also an ingredient of choice in the manufacture of many commercial products, where it can cut down the need for additional artificial chemicals, so is ideal as an additive in everyday items such as laundry products, household cleaners, polishes, soaps, shampoos, hair conditioners, toiletries, skin creams, salves, ointments, toothpastes, mouth washes, deodorants, air fresheners, nail conditioners and insect repellents.

**Propagation** : Vegetative propagation through sprigs gave good results.
IBA **1000 ppm gives 25-35 % of rooting**
After obtaining the seeds, the germination will be done

**Traditional knowledge** English : **Cajuput tree, White tea tree, Swamp tree.**
Hindi : **Cajuput, kayputi,** Telugu : **kaiyappudai**

**Seed harvesting method** : Under observation

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# Trichy